Abstract

[0048]   The present invention provides a method for identifying a subject having a risk of developing obesity, coronary microvascular dysfunction, or hypertension, comprising detection of the presence of a single nucleotide polymorphism (SNP) in a nucleic acid encoding an element of at least one β-adrenergic receptor from the subject. The presence of the SNP is correlated with obesity, coronary microvascular dysfunction, or hypertension, and thereby identifies the subject as having a risk of developing obesity, coronary microvascular dysfunction, or hypertension. The subject invention also provides methods of identifying patients likely to benefit from the prescription of beta blocker hypertension medications. In various embodiments, the nucleic acids detected include those genes encoding ADRB1 (β_1AR), ADRB2 (β_2AR), ADRB3 (β_3AR), GNB3 (G protein β3 subunit), or GNAS1 (G_s protein alpha subunit). Methods of treating identified individuals are also provided.